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PATENT
Atty. Docket No. 35512-33

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

G. MICHAEL PHILLIPS, ET AL.

Application No.: 09/615,021

Filed: July 13, 2000

For: SENSITIVITY/ELASTICITY-BASED ASSET
EVALUATION AND SCREENING

Group Art Unit: 3691

Examiner: Subramanian, Narayanswamy

Conf. No.: 3965

APPELLANTS' REPLY BRIEF

The following remarks respond to the Examiner's Answer that was mailed on December 4, 2007.

Appellants' main points have been provided in the original Appeal Brief. The following remarks respond only to the new arguments made by the Examiner in the Answer, which are set forth in Section (10) "Response to Argument". The substantive arguments made by the Examiner in Section (9) "Grounds of Rejection" appear to simply repeat arguments that were made in the Office Action dated November 16, 2004, which Appellants addressed in the original Appeal Brief.

The Examiner initially argues that

“applicant’s invention is nothing more than an application of multivariate analytical techniques to asset valuation. Such applications to security valuation have been old and well known for more than two decades. Valuation models like Capital asset pricing model (CAPM), arbitrage pricing model (APM), which can be found in Basic Investment textbooks, are examples of these applications.”

In response, it is noted that such a blanket attempt to trivialize any invention is entirely inappropriate in a patentability analysis. Rather, the entire focus of any such analysis is required to be the actual combination of features recited in each claim and whether that combination of features would have been anticipated by or obvious in view of the cited prior art. Appellants respond to the specific arguments made by the Examiner as follows.

Rejection Under § 102(b) Over Lambert

Claims 1, 37 and 39

The Examiner correctly notes that Lambert discloses a formula, and that the formula is derived based on historical data for the value of an asset and historical data values for exogenous variables. However, Lambert’s formula (which is disclosed in Lambert column 1 lines 29-35) clearly is for estimating the future price of a particular stock, as noted in column 1 lines 29-31, 20-24 and 40-45.

In contrast, the present claims recite the feature of estimating obtaining “a formula for calculating a measure of a tendency of the value of the asset to change as a result of changes in the data values for the exogenous variables”. Such a formula clearly is different than the price estimate formula disclosed in Lambert.

As noted in the Appeal Brief, the Examiner initially argued that Lambert determines a measure of tendency to change a value as an intermediate step in arriving at his price estimate formula. The response to that argument is set forth in the Appeal Brief.

Now, the Examiner appears to be arguing that Lambert's price estimation formula is itself a "formula for calculating a measure of a tendency of the value of the asset to change as a result of changes in the data values for the exogenous variables." The only justification apparently provided in support of this argument is that Lambert suggests using his device (and, therefore, inherently his pricing formula) to estimate a high price and a low price for the stock with respect to the coming year.

The Examiner does not explain how merely estimating two different price estimates using a price estimate formula would constitute a "formula for calculating a measure of a tendency of the value of the asset to change as a result of changes in the data values for the exogenous variables," as presently recited. Even with Lambert's estimated high and low price for the coming year, one still would not have a formula for calculating the tendency of Lambert's stock price to change as a result of a change in one of his exogenous variables.

On the other hand, by closely examining Lambert's pricing formula, it is possible to determine the tendencies for the subject stock price to change. Specifically, the tendency, with respect to each variable V_1 - V_5 , is the corresponding coefficient A-E. However, as mentioned in the Appeal Brief, the coefficients A-E are simply constants. They simply do not, either individually or collectively, constitute a formula that itself is a function of the exogenous variables, as presently recited.

The Examiner is correct that Lambert apparently determines the coefficients A-E by minimizing some measure of error. However, the derivation of coefficients A-E is irrelevant.

Once such coefficients have been determined and are inherently programmed into Lambert's device for use in calculating a particular stock price, such coefficients are constant and do not depend on any exogenous variable.

The present claim language is clear that the formula used for estimating a measure of the tendency of the value of the asset to change "is a function of the exogenous variables". It does not recite that some of the variables might, during some point in their derivation, have been based on the exogenous variables. Other portions of the claim language emphasize this point. Specifically, the step of estimating the measure of the tendency of the value of the asset to change based on a change in at least one of the exogenous variables uses the obtained formula *and the projected data values for the exogenous variables*. In contrast, projected data values for Lambert's exogenous variables would be unnecessary for determining similar tendencies to change value (or price) because, as noted above, Lambert's tendencies to change value are in fact constants.

It further should be emphasized that the preceding discussion covers certain theoretical aspects behind Lambert's device. That is, it discusses the theoretical possibility of looking into Lambert's underlying formula (which inherently is generated and then used by Lambert's device) in order to identify a tendency to change value that is intrinsic in Lambert's formula.

The Examiner has cited the present claims under § 102(b) over Lambert which, as noted in the Appeal Brief, means that each element of the invention must be shown in as complete detail as is contained in the claim. The fact is, however, that Lambert does not disclose many of the features of the present invention.

Lambert's tendencies to change value can only even be identified by examining the formula that inherently is used by his device. Lambert says almost nothing at all about his

coefficients, and certainly does not disclose using them in the manner presently recited. Absent such disclosures, Lambert could not possibly have anticipated the present claims.

Claim 7

With respect to this rejection, the Examiner simply asserts, “One of ordinary skill in the art would understand that the partial derivative of the dependent variable with respect to an exogenous variable gives the coefficient for that variable.”

In response to this assertion, it initially it is noted that claim 7 also stands rejected under § 102(b) over Lambert. However, even the Examiner does not assert that Lambert discloses (even inherently) this feature of the invention. Moreover, it is Appellants’ belief that no such assertion realistically could be made, as there is absolutely no disclosure in Lambert to support it. Accordingly, Appellants continue to believe that claim 7 is allowable over the applied art.

Claim 14

As to this rejection, the Examiner apparently again relies on Lambert’s calculation of a high and low price estimate for the coming year. The Examiner does not explain, however, how the calculation of such prices is the same as repeating the step of estimating the measure of the tendency of an asset’s value to change based on a change in at least one of the exogenous variables, using different projected data values for the exogenous variables.

Again, price (as determined by Lambert’s device) clearly is not the same as tendency to change value (as presently recited). The comments made in the Appeal Brief remain valid: even if there were some motivation to look at Lambert’s coefficients (i.e., the tendencies to change value that are inherently present in his underlying formula), repeating such an examination with different projected values for the exogenous variables would be pointless, as Lambert’s

coefficients are constant. Accordingly, Appellants continue to believe that claim 14 is allowable over the applied art.

Rejection Under § 103(a) Over Lambert in view of Bekaert

Claim 21

Claim 21 recites the additional feature of repeating the process of independent claim 1 for plural different assets and selecting a subset based on the estimated measures of tendency to change value for the different assets. Essentially, claim 21 recites the additional feature of screening assets based on their estimated tendencies to change value as a result of changes in data values for exogenous variables.

The Examiner fails to address any of the arguments made in the Appeal Brief with respect to the rejection of claim 21. Instead, new portions of Bekaert are cited and additional arguments are made. Appellants respond as follows.

Column 4 lines 1-9 of Bekaert generally discusses Bekaert's pricing module and says nothing at all about screening assets based on their estimated tendencies to change value as a result of changes in data values for exogenous variables.

Column 4 lines 24-30 and column 5 lines 40-45 of Bekaert discuss inputs to Bekaert's pricing module, which include sensitivity data. However, even if such sensitivity data is equivalent to the present invention's tendencies to change value, the sensitivity data in Bekaert simply is used as an input for purposes of estimating a price. Bekaert does not even remotely suggest screening assets based on such sensitivity data.

Column 4 lines 35-44 of Bekaert discusses price generation for multiple assets, which are then used as core assets by Bekaert's simulation module. Once again, this has nothing

whatsoever to do with screening assets based on their estimated tendencies to change value as a result of changes in data values for exogenous variables.

The Examiner states that “The intermediary step of generating a formula for generating a future price is inherent in the disclosure of Bekaert.” While undoubtedly true, it is unclear how this relates in any way to the use of tendencies to change value based on changes in exogenous variables for the purpose of screening assets.

The Examiner also asserts that Bekaert uses the output of his pricing module to identify one or more optimal portfolios. Appellants are willing to concede that selection of an optimal portfolio would involve screening. However, the screening in Bekaert is based solely on price, not on estimates of tendency to change value as a result of changes in data values for exogenous variables, as presently recited. Nothing in Bekaert indicates to the contrary.

For the foregoing additional reasons, Appellants continue to believe that claim 21 is allowable over the applied art.

Rejection Under § 103(a) Over Lambert in view of Makridakis

Claim 17

The Examiner’s arguments with respect to this rejection appear to rely upon the Examiner’s assertion that Lambert discloses generating a formula for calculating a measure of a tendency of the value of an asset to change as a result of changes in the data values for exogenous variables. As noted in detail above, this clearly is not the case. Even Lambert describes his formula as a pricing formula, and nothing more. Accordingly, Appellants continue to believe that claim 17 is allowable over the applied art.

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If there are any fees due in connection with the filing of the currently submitted papers that have not been accounted for in this paper or the accompanying papers, please charge the fees to our Deposit Account No. 502490. If an extension of time under 37 C.F.R. 1.136 is required for the filing of the currently submitted papers and is not accounted for in this paper or the accompanying papers, such an extension is requested and the fee (or any underpayment thereof) should also be charged to our Deposit Account.

Dated: February 4, 2008

Respectfully submitted,
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